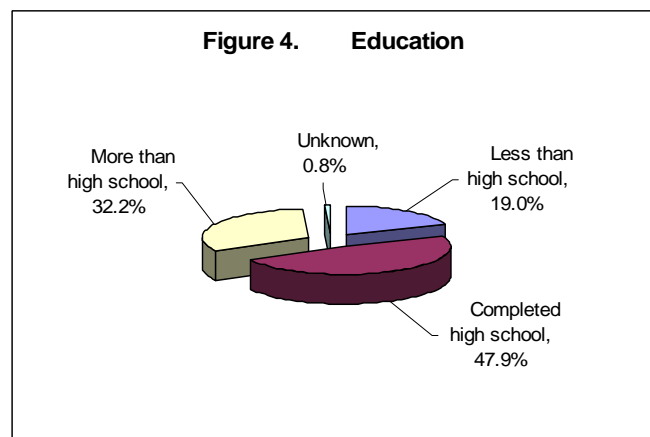
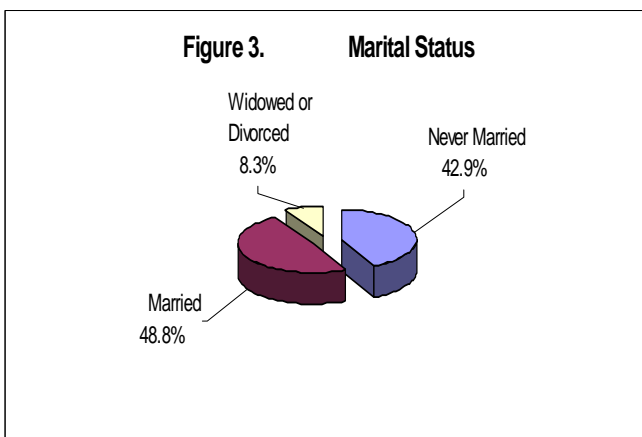
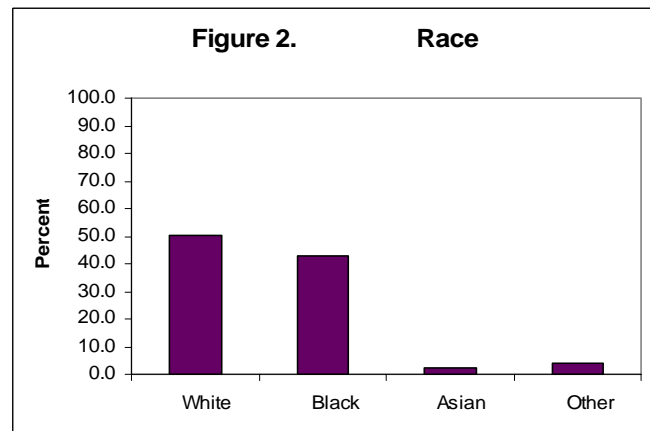
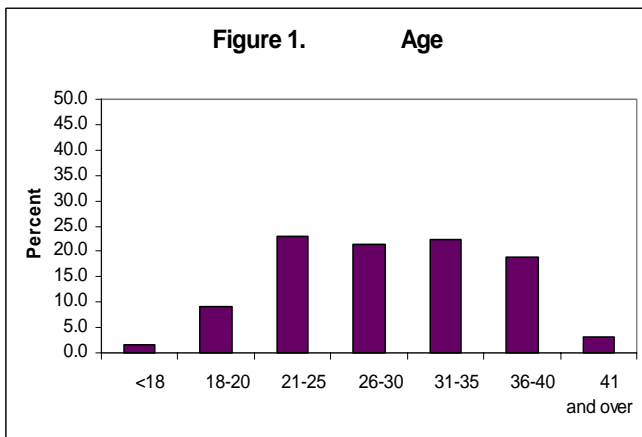


Maternal Mortality Review in Virginia

The Maternal Mortality Review Team (MMRT) is a multidisciplinary team which reviews all deaths of women that occur during pregnancy or within one year of the end of a pregnancy regardless of the outcome of the pregnancy or the cause of death. These deaths are called pregnancy-associated deaths. Findings generated through these reviews are used to take action to prevent future deaths. The MMRT reviews all pregnancy-associated deaths where the death occurred in Virginia to a Virginia resident.

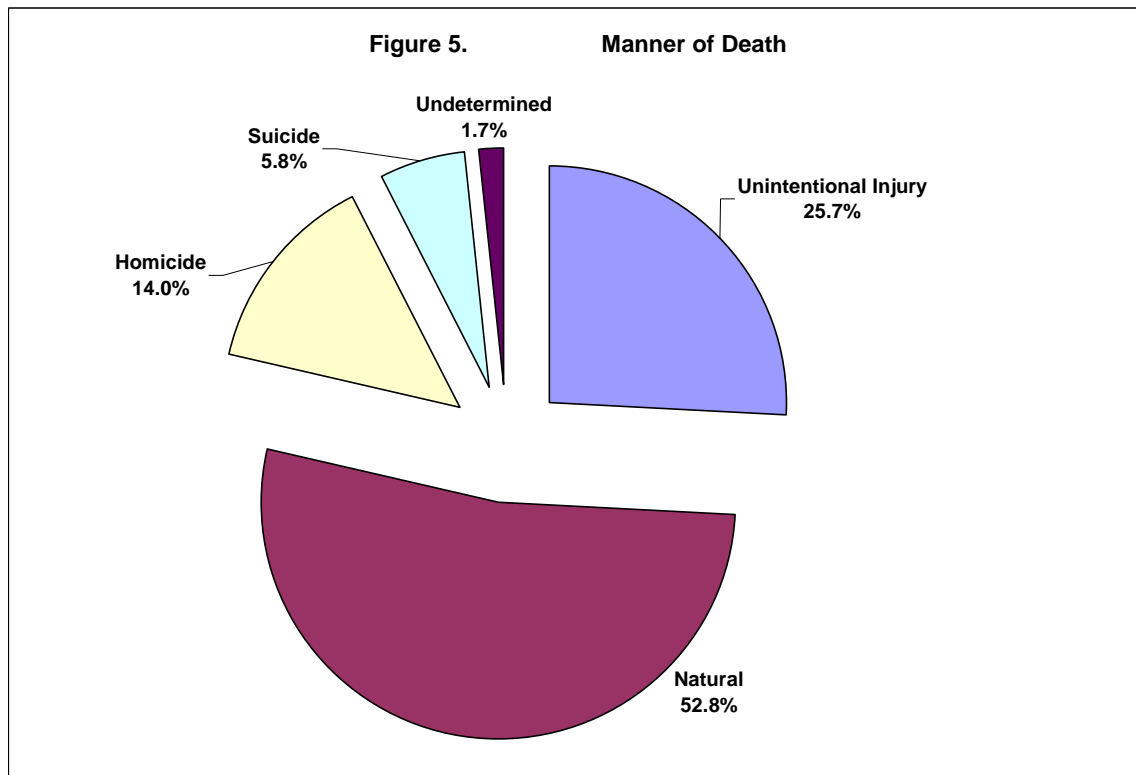
The Team reviewed 121 cases of pregnancy-associated death occurring between 1999 and 2001. There were 43 deaths in 1999, 40 deaths in 2000, and 38 in 2001. Overall, ages ranged from 14 to 46 years old. About half of the women were White and the largest percentage were high school graduates. Close to half were married when they died.



The maternal mortality ratio is used to compare rates of death between groups. It represents the number of maternal deaths per 100,000 live births. The overall pregnancy-associated maternal mortality ratio for the three year period from 1999-2001 was 42.2. For White women, the ratio was 30.5. For Black women, the ratio was 78.4, indicating a significant racial disparity. Virginia has five Health Service Areas (HSA) for the purposes of planning. Looking at maternal mortality ratios by Health Service Area reveals differences across regions of Virginia.

Table 1. Maternal Mortality Ratios In Health Service Area By Race						
	Total		White		Black	
	No. of Deaths	Maternal Mortality Ratio	No. of Deaths	Maternal Mortality Ratio	No. of Deaths	Maternal Mortality Ratio
HSA I - Northwest	13	34.4	11	33.7	1	24.5
HSA II - Northern	22	25.9	13	20.2	4	36.5
HSA III - Southwest	22	51.7	15	42.0	7	117.4
HSA IV - Central	28	58.5	9	31.3	18	103.8
HSA V - Eastern	36	48.6	13	31.1	22	78.8
Total	121	42.2	61	30.5	52	78.4

The Team reviewed cases of both violent and natural deaths. The majority of pregnancy-associated death in Virginia (52.8%) was due to natural causes. Natural deaths were defined as those occurring as a result of a disease or illness process. Violent death accounted for 45.5% of all cases and included unintentional injury (25.7%), homicide (14.0%), and suicide (5.8%). The cause and manner of death were not determined in two cases (1.7%).



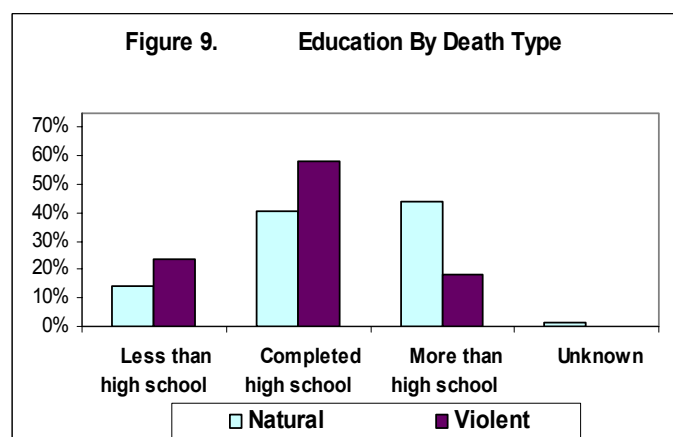
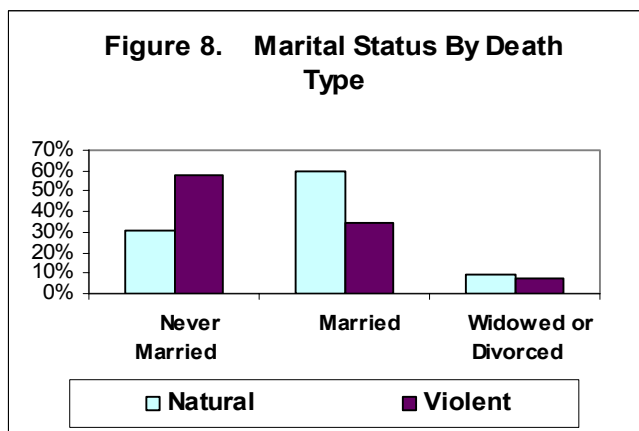
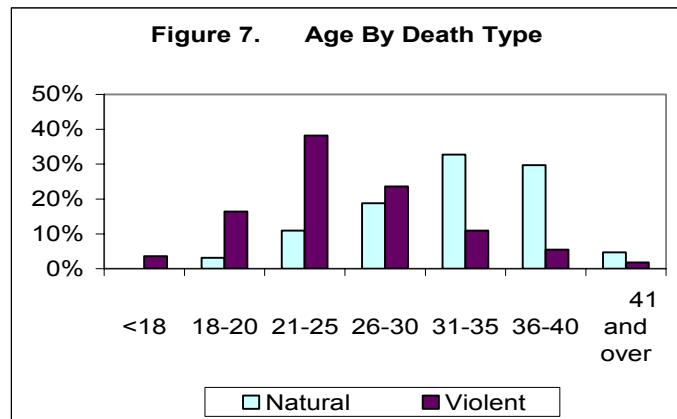
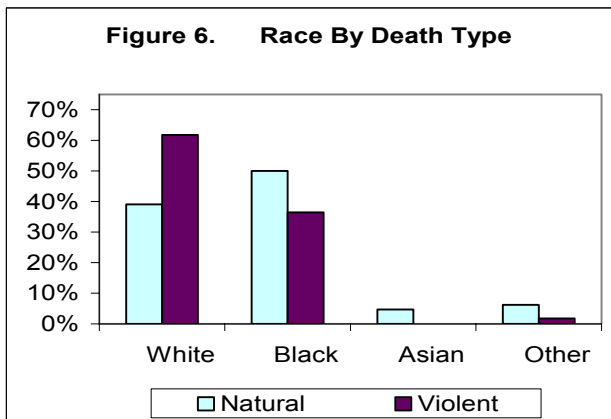
The leading cause of natural death was cardiac disease which accounted for 15 deaths, followed by pulmonary embolism (9 cases), and cancer (7 cases). Unintentional injury accounted for over half of violent deaths including motor vehicle collisions which were the cause of the largest number of pregnancy-associated deaths (22 cases) and accidental overdose which claimed 7 lives.

Women dying from violent causes tended to be:

- ◆ young, single, White, and to have had a high school education.

Women dying from natural causes tended to be:

- ◆ older, married, Black, and more highly educated with 43.8% having more than a high school education.



Additional Information

For additional information, please contact Victoria Kavanaugh at (804) 786-6095 or Victoria.Kavanaugh@vdh.virginia.gov.

The full report with Team Recommendations is available at:

- ◆ <http://www.vdh.virginia.gov/medExam/MaternalMortality.htm>

For additional information on maternal mortality visit:

- ◆ The Centers for Disease Control and Prevention, Maternal and Infant Health, Pregnancy-Related Death at: <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/PregDeaths.htm>
- ◆ World Health Organization at: http://www.who.int/reproductive-health/publications/maternal_mortality_2000/index.html